Assessing the Economic Implications of the N-Power Initiative on Youth Income and Savings Behaviour in Central Zone of Taraba State, Nigeria

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ABSTRACT

This investigation critically assesses the economic ramifications of the N-Power initiative on the income and savings behaviours of youth within the central senatorial district of Taraba State, Nigeria, a locale characterized by elevated levels of youth unemployment. Employing a quasi-experimental framework and survey data obtained through administration of Likert scale questionnaire via random sampling across diverse strata, subjected to linear regression analysis, the research compares the outcomes of program beneficiaries with those of non-beneficiaries. The results indicate a statistically significant positive association (coefficient: 1.4907, $p < 0.001$) between participation in the program and income levels, with beneficiaries realizing approximately 1.49 units of additional income compared to their non-beneficiary counterparts, while maintaining constant savings behavior. The analysis further reveals a marginal effect (0.0082) of savings on income, underscoring the program's capacity to enhance participants' potential to utilize savings for income generation, albeit the interaction term did not achieve statistical significance. The research culminates in the assertion that the N-Power program substantially elevates youth income and fosters improved savings behavior, thereby enhancing financial well-being and resonating with Sen's Capability Approach by facilitating empowerment opportunities. To augment the impact of the program, the study recommends the implementation of financial literacy training and the establishment of collaborations with financial institutions to maximize savings and income outcomes, particularly for youth residing in rural areas.

Key Words: Youth unemployment, N-Power program, Vocational training, Income-generation, Savings behaviour, Central senatorial zone; and Taraba State.

INTRODUCTION

Youth unemployment in Nigeria constitutes a formidable challenge, exacerbating poverty, social unrest, and economic stagnation. Statistical evidence sourced from the National Bureau of Statistics (NBS, 2020) illustrates a persistent escalation in unemployment rates within the youth demographic, which represents over 62% of the total population. The unemployment rate experienced an increase from 33% in the third quarter of 2020 to 53.4% in the second quarter of 2022, as per projections from the World Bank (2022). Additionally, the aggregate rate of unemployment and underemployment was documented at 55.7% in the second quarter of 2020, detrimentally impacting a considerable segment of the youth population (Olufemi, 2020), with numerous graduates encountering substantial barriers in securing employment on an annual basis (Ogide & Amaso, 2020); moreover, (Adewale et al., 2020) reported a youth unemployment rate of 55.4%, thereby underscoring persistent challenges to socio-economic stability. This assertion is corroborated by the 2022 Multidimensional Poverty Index Survey, which unveiled a pronounced prevalence of multidimensional poverty among Nigerian youth, primarily attributable to unemployment (NBS, 2022). Furthermore, the phenomenon of youth unemployment demands prompt intervention, as the youth represent the pivotal force that propels any society towards advanced developmental stages (Sambo & Anpe, 2017).Notwithstanding various governmental endeavours aimed at ameliorating this issue through initiatives such as the Presidential Youth Empowerment Scheme (P-YES), National Directorate of Employment (NDE), the Youth Initiative for Sustainable Agriculture (YISA), the Youth Entrepreneurship Support Program (YES), and Skills Development for Youth Employment

(SKYE), unemployment rates persist at alarmingly elevated levels (Oluwasola et al., 2023), particularly in rural regions such as Taraba State (Yakubu et al., 2023). The N-Power program, a governmental initiative under the National Social Investment Program (NSIP), endeavours to mitigate youth unemployment by offering vocational training, temporary employment, and entrepreneurial support. However, there is a dearth of empirical evidence regarding the program's economic impact at the state level, especially within the central senatorial district of Taraba State, thus indicating a significant gap.

CONCEPTUAL AND EMPIRICAL LITERATURE REVIEW

Youth empowerment

This concept pertains to the process of equipping young individuals with essential resources, opportunities, and competencies that enable them to take command of their lives and effectuate positive transformations within their communities. The United Nations Development Programme (UNDP, 2014) underscores the significance of engaging youth in decision-making frameworks, positing that youth empowerment is integral to sustainable development and the resolution of social challenges. Amartya Sen further elucidates the function of empowerment as a catalyst for social transformation, particularly through the lenses of education, gender equity, and democratic engagement. The World Bank (2016) contends that the empowerment of young individuals is fundamental for fostering positive social and economic metamorphoses, advocating for investments in their education, skill enhancement, and active civic involvement to yield beneficial outcomes. Consequently, youth empowerment is conceptualized as a motivational framework that enables young individuals to navigate their socio-economic responsibilities effectively.

Economic empowerment

within the Nigerian context is crucial for facilitating sustainable development, thus improving the welfare of both individuals and communities. Prominent scholars such as (Sen, 1999) correlate economic empowerment with the overarching notion of human development, emphasizing the necessity of enhancing capabilities and broadening choices to attain financial independence. Sen (2021) articulates economic empowerment as the enhancement of individuals' economic capacities in conjunction with the augmentation of control over financial resources. In a similar vein, (Ogbe, 1996) asserts that economic empowerment serves as a catalyst for motivating individuals within society to increase productivity and achieve self-reliance. Furthermore, initiatives aimed at economic empowerment often encompass educational opportunities, skills training and development, access to credit, and avenues for income generation, which collectively aid individuals in transcending poverty (Duflo, 2012). In summary, economic empowerment is perceived as a critical driver for improved productivity, self-sufficiency, and the establishment of a more inclusive and sustainable economic framework, particularly for marginalized populations.

Social Investment Program (N-Power)

Social investment is perceived as a viable strategy for addressing societal challenges. It entails the allocation of financial resources to confront issues such as poverty, unemployment, and inequality (Swanborn, 2014). Rather than relying exclusively on conventional welfare policies, social investment emphasizes preventive strategies including education, training, and skills development. The objective is to empower individuals and foster their social inclusion, ultimately diminishing their dependence on welfare and promoting sustainable societal advancement. However, the N-Power program specifically targets unemployed young Nigerians between the ages of 18 and 35 years. By investing in the welfare and development of young individuals, it facilitates their active contribution to positive change within their communities. Moreover, the program directly addresses the issue of youth unemployment in Nigeria, having trained and employed over 500,000 unemployed youths since its inception in 2016 (NBS, 2020). By equipping young people with pertinent skills and knowledge, enhancing their employability, and providing job opportunities along with entrepreneurial support, they have experienced growth in their income and improvement in their overall well-being.

Poverty

As delineated by (Sen, 1999), constitutes a multifaceted condition wherein individuals are deprived of the essential resources requisite for fulfilling fundamental needs such as nourishment, habitation, healthcare, education, and personal security. This phenomenon transcends mere low income, encompassing also restricted access to services, social marginalization, and diminished participation within societal frameworks. The United Nations Development Programme (UNDP, 1997; Narayan et al., 2000) further broaden this conceptualization to incorporate dimensions such as health, knowledge, resource accessibility, social determinants, and lived experiences. The causative factors of poverty are rooted in economic, social, political, and environmental dimensions, which collectively impinge upon both physical and mental well-being. To effectively mitigate poverty, it is imperative to undertake initiatives aimed at enhancing access to resources and opportunities, thus empowering individuals via education, vocational training, and healthcare provisions, while simultaneously addressing structural impediments such as inequality (World Bank, 2020). By tackling both the immediate exigencies and the underlying causes, poverty alleviation endeavours aspire to enhance the quality of life and ensure equitable opportunities for all individuals.

Empirical review

The review scrutinizes a variety of scholarly investigations concerning the N-Power youth empowerment initiatives in Nigeria, concentrating on its ramifications for youth income, poverty alleviation, and savings behaviour. The conclusions drawn from the existing literature exhibit variability, with certain studies delineating considerable positive effects while others indicate minimal or negligible impacts. For example, (Kayode et al., 2023), employing a mixed-methods framework within Bida LGA, Niger State, ascertained notable contributions of the N-Power initiative to poverty alleviation, proposing enhancements for improved sustainability. In a similar vein, (Yakubu et al., 2023) observed that in Gassol LGA, Taraba State, the program significantly bolstered job creation, underscoring the necessity for the program's expansion. Furthermore, (Isa et al., 2024) asserted that in Maiduguri, the program had a favourable influence on employment generation and skill development, albeit its poverty alleviation effects were found to be moderate. Recommendations encompassed collaborations with the private sector and initiatives aimed at financial literacy. Conversely, (Donga & Jiddere, 2023) noted that the program substantially enhanced youth employment and savings; however, its overall impact on living standards was constrained within Adamawa State. Additionally, (Muhammad et al., 2023) contended that the program significantly mitigated unemployment and fostered socio-economic advancement through skill acquisition and job creation in Niger State.

In contrast, investigations including (Robert et al., 2023) indicated that the program exhibited an insignificant effect on poverty alleviation and unemployment reduction, attributed to inflationary pressures and insufficient transitional support. Suggested measures included providing loans and mentorship to ensure sustainability. Likewise, (Dawda et al., 2019), utilizing a cross-sectional survey, revealed a limited impact of the program on income, employment, and financial independence in Minna, Niger State. The hypothesis derived from the review posits that the N-Power program enhances youth income by improving savings behaviour. Variables such as education, household size, and age are controlled to account for observable discrepancies in income outcomes, as substantiated by (Krueger & Lindahl, 2001; Glewwe, 2002; Deaton & Paxson, 1998; Mincer, 1974; Heckman & Robb, 1985).

Theoretical Framework

This research is fundamentally anchored in Amartya Sen’s (1999) Capability Approach, which underscores the significance of effectively employing resources to facilitate development and confront challenges such as poverty, inequality, and the empowerment of youth. As articulated by (Sen, 1999), development must prioritize the enhancement of individuals’ capabilities and freedoms, thus fostering self-sufficiency and overall well-being. This paradigm advocates for the formulation of policies that generate opportunities, particularly for marginalized populations, with the objective of nurturing self-reliance and elevating the quality of life. It accentuates the necessity of skill development and the expansion of opportunities as essential strategies for mitigating unemployment and poverty, especially pertinent in areas characterized by elevated youth unemployment rates, such as Taraba State, Nigeria.

The Capability Approach is structured around three fundamental strategies: a goal-oriented framework directed towards developmental objectives, the liberty to attain well-being, and the intrinsic merit of individual achievements. Central constructs encompass capabilities (genuine opportunities for meaningful accomplishments), functioning (realized states and activities), agency (independent action and choice), alongside a pronounced focus on social justice and equality. The approach advocates for the implementation of policies that empower marginalized demographics, particularly youth, by broadening their skill sets and dismantling barriers to participation in both social and economic spheres.

In Nigeria, the pervasive issue of high youth unemployment necessitates the enhancement of capabilities to secure sustainable economic living standards. The study emphasizes the critical role of governmental engagement, exemplified by initiatives such as the N-Power program, which are instrumental in youth empowerment through the enhancement of employability, income generation, and entrepreneurial competencies. By promoting employability and self-sufficiency, the Capability Approach presents a robust framework for governmental bodies and non-governmental organizations to empower unemployed youth, alleviate poverty, and enhance quality of life through the provision of sustainable economic opportunities.

METHODOLOGY

The methodology section articulates the systematic methodologies utilized to achieve the objectives of the study, which include research design, determination of sample size, and data analysis. This methodological framework enables a comprehensive assessment of the effects of the N-Power program on income generation, as well as the moderating influence of savings on the relationship between program participation and youth income status among the youth residing in the central senatorial district of Taraba State.

A survey methodology was implemented to examine the socioeconomic conditions of unemployed individuals aged 18-34 in the central senatorial zone of Taraba State. Primary data concerning income, age, participation in the N-Power program, household structure, saving behaviours, and educational attainment were collected through structured Likert scale questionnaires and subjected to quantitative analytical methods. However, the questionnaire underwent pretesting to ensure reliability as noted in (Hertzog, 2008). The internal consistency was validated by a Cronbach's alpha coefficient of $0.78 > 0.70$ as reported by (Cronbach & Shapiro, 1982), while the Spearman rank correlation test indicated a strong and positive correlation between the dependent and independent variables. The research focused on the central senatorial zone of Taraba State, which comprises five Local Government Areas (LGAs): Bali, Gasol, Kurmi, Gashaka, and Sardawana.

The target population consisted of beneficiaries of the N-Power program over a two-year duration, classified as the treatment group, while non-beneficiaries were designated as the control group. Employing Cochran's sampling technique (1963) formula at a 95% confidence level, with a 5% margin of error and 50% variability, a sample size of 385 was determined for each group, utilizing a multistage sampling approach. Stratified random sampling methods, as discussed by (Lee et al., 2020), were utilized within each LGA to select participants based on criteria such as ethnicity, ward, and community affiliation, while the distribution of the research instrument was conducted according to the sample size within each stratum. The researcher executed a stratum stratified sampling weight and finite population correction for the survey dataset employed in the inferential statistics of the study. Nevertheless, the survey weight was essential in the analysis of our survey data as it facilitates inferences to the population by adjusting the sample data to enhance representativeness and mitigate variation in the analytical outcomes. The strata stratified sampling weight for this study was calculated for each stratum using the Stata 11 version formula:

S. weight = $\frac{N_i}{n_i}$ or $\frac{1}{FPC}$

Simultaneously, the finite population correction values were computed using the Stata 11 version formula: fpc = $\frac{n_i}{N_i}$

where n represents the number of sampled individuals, N denotes the population size, and i indicates the individual stratum. Key variables were systematically coded for analytical objectives. Inferential statistics,

specifically survey linear regression analyses conducted through survey methodologies, were employed to assess the correlation between beneficiaries of the N-Power program and their monthly income. Additionally, the interaction effect of the savings rate of unemployed young individuals on the relationship between program participation and the income generation of beneficiaries was examined. The analytical framework encompassed variables including age, gender, household size, educational attainment, and saving behaviours.

The explicit specification of the model is delineated in Equation [1]:

monthly income = f (n-power, hhsize, age, sex, edu qualification, savingshabit) ……. [1]

During the estimation process, parameters along with a stochastic term 'u_{it}' were integrated into the model to account for variables that may exert an influence on the dependent variable but are not explicitly included in the model. The implicit formulation of the model is represented in Equation [2] (i.e., a linear function of Equation [1]).

Monthly $income_{it} = \beta_0 + \beta_1 Npower_i + \beta_2 saving_i + \beta_3 hhsize_i + \beta_4 age_i + \beta_5 edu.quali_i + \beta_6 sex_i + u_i$ …… [2]

Where Monthly income denotes the outcome measure for each individual observation (i). The β_0 (the intercept) signifies the probability for an individual when all independent variables are held constant at zero; β_1 - β_6 (Parameter estimates) symbolizes the estimated coefficients for the independent variables; β_1 denotes coefficient for program participation (treatment); β_2 denotes coefficient for saving habits; β_3 denotes the coefficient for household size of the individual respondent; β_4 denotes coefficient for age; β_5 denotes the coefficient for respondent's educational qualification; and β_6 denotes the coefficient for sex; whereas u_i represents the disturbance term.

On a priori grounds, the various theoretical expectations are: $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, > 0$.

This indicates a positive correlation among the variables in the model. An increase in the explanatory variables will result in a corresponding increase in the dependent variable by an equivalent magnitude. Ssubsequent, post-estimation tests were performed to validate the model's reliability. Furthermore, to ascertain the interaction effect of the savings rate among unemployed young individuals on the nexus between the N-Power program and monthly income, the subsequent interaction model was estimated to elucidate the research inquiry, 'in what manner does the marginal effect of the savings rate fluctuate for program participants and non-participants within the designated study area?'

The employed Linear Model Specification is delineated as follows:

$Y = \beta_0 + \beta_1 \text{Treatment} + \beta_2 \gamma + \beta_3 (\textit{Treatment}^* \gamma) + \varepsilon.$

This can be further articulated as:

Monthly $income_{it} = \beta_0 + \beta_1 treatment_i + \beta_2 saving_i + \beta_3 treatment_i * saving_i + \beta_4 age_i + \beta_5 edu.quali_i + \beta_6 hhsize_i + u_i$ …… [3]

In this conceptual framework, average monthly income was articulated as a function of (Treatment; savings habit; Treatment*savings; age; educational qualification; h/hsize).

In this analysis, average monthly income is designated as the dependent variable. The variable Treatment is categorized as 1 for program beneficiaries and 0 for non-beneficiaries. The variable savings rate encapsulates the saving behaviors exhibited by young individuals, whereas Treatment*saving habit serves as the interaction term between treatment and savings rate, thereby quantifying the marginal effect of treatment on the average income outcomes of young individuals, which stem from enhancements in the savings rate. ($\beta_4 x_{it}$. + ……+ $\beta_k x_{it}$) = X vector variables that account for observable discrepancies both within and across groups: age; educational qualification; and h/size.

The present research advocates for the employment of survey linear regression and interaction models as opposed to the utilization of descriptive statistics for the purpose of conducting causal analysis. Descriptive statistics exhibit limitations in their ability to clarify relationships and connections, whereas regression analysis facilitates the identification of associations and interactions. Survey regression effectively accommodates the complexities inherent in sampling design, thereby ensuring that estimates are both representative and precise.

Interaction models elucidate the relationship between participation in N-Power and resultant outcomes, a nuance that descriptive statistics fail to capture. This methodological approach yields actionable insights for policymakers, thereby underscoring the differential impacts of the program across various subgroups. Moreover, the confidentiality and anonymity of the participants were diligently preserved throughout the entirety of the research endeavour. The data analysis was executed utilizing Stata version 11 for the purposes of conducting inferential analysis.

RESULT AND DISCUSSION

The descriptive statistics regarding the socioeconomic characteristics of respondents revealed that a considerable majority of participants (68.3%) self-identify as male, which is substantiated by the findings of (Adewale et al., 2020), indicating a significant male participation in empowerment initiatives. The majority of respondents fall within the 26-29 age range, with a mean age of 26.5 years, which aligns with the demographic classification of youth in Nigeria. Conversely, (Emiola et al., 2019) reported a slightly younger demographic cohort of 21-25 years. Over 58% of the beneficiaries are married, a trend that is characteristic of northeastern Nigeria, where cultural norms advocate for early matrimonial arrangements.

This observation is consistent with the conclusions of (Ayan Wuyi et al., 2007) but contrasts with the findings of (Adewale et al., 2020), who identified early marriage as a barrier to participation in programs. A notable segment of beneficiaries possesses a basic level of education (mean of 3.8), indicating achievement at either the secondary or diploma level. Approximately 42% of N-Power beneficiaries report generating a monthly income around 40,000 Naira, a figure that exceeds that of non-beneficiaries, with 35% earning less. This suggests that the N-Power initiative has a positive impact on income generation, corroborating research that demonstrates its effectiveness in mitigating unemployment and poverty (Yakubu et al., 2023; Donga & Jiddere, 2023). Approximately 53.57% of participants and 54.95% of non-beneficiaries maintain household sizes that range from 4 to 6 individuals, a statistic that may correlate with the patterns of early marriage prevalent in the region.

Survey Linear Regression Estimation Findings

TABLE 1: Summary of the Estimation Results.

Dependent Variable Monthly y	Coef	Linearized Std. Err.	t-stat	P > /t/	95%conf. Interval
Cons	1.0347	.2139	4.84	0.000**	.6147169 1.454628
Treatment	.2719	.0729	3.73	0.000**	.1287802
`Savings	.1428	.0334	4.27	0.000**	.414891
h.h. size	.0602	.0436	1.38	0.168	.0771608
Edu. Qual	.2989	.0360	8.30	0.000**	.2084352
Sex	-.0672	.0724	-0.93	0.354	-.025436
Age	.2314	.0393	5.89	0.000**	.1458753 .2281539 .3696611 -.2094193 .0750034 .1542468 .3086363

F (6, 666)	33.95				
Prob > F	0.000				
$\mathbf{R^2}$	0.2342				
Adj. $\mathbf{R^2}$	0.2273				
Root MSE	0.9142				

Source: Author's computation 2023. Stata 11 version. Note P < 0.05.**

Table 2 delineates the outcomes of the linear regression analysis, investigating the association between engagement in the N-Power program and monthly income, while integrating a range of demographic and socioeconomic variables within the analytical framework. With an F-statistic of 33.95 and a Prob > F = 0.0000, the model demonstrates statistical significance, thereby suggesting that the independent variables collectively account for a substantial portion of the variability observed in monthly income. The $\mathbf{R^2}$ value of 0.2342 indicates that 23.4% of the income variability can be elucidated by the model, whereas the Root Mean Square Error (Root MSE) of 0.9142 signifies the average deviation between forecasted and actual monthly income figures, which implies a moderate fit. In the realm of social science research, lower $\mathbf{R^2}$ values and elevated Root MSE values are frequently deemed acceptable, as the primary objective is to comprehend the relationships between variables rather than to achieve precise predictive accuracy, as highlighted by (Ozili, 2023).

The coefficient associated with the treatment variable is 0.2719, with $p < 0.001$, which signifies a statistically significant positive correlation between program participation and income, with an anticipated increase of approximately 0.27 units. This implies that participation in the N-Power program is linked to discernible income advantages for its participants. The savings variable similarly exhibits a positive, statistically significant impact on income, with a coefficient of 0.1428 $p < 0.001$, suggesting that elevated savings are associated with increased income, potentially indicating that individuals who save engage in supplementary income-generating endeavours. The household size variable, with a coefficient of 0.0602 and $p = 0.168$, lacks statistical significance, suggesting it exerts minimal influence on income within this model.
Education demonstrates a significant positive correlation with income, as evidenced by a coefficient of 0.2989 and $p < 0.001$ underscoring that enhanced educational attainment is strongly associated with elevated income levels. Conversely, the coefficient for sex stands at -0.0672, which is statistically insignificant $p = 0.354$, indicating an absence of meaningful gender-based effects on income. In contrast, age exhibits a positive and statistically significant influence on income (coefficient = 0.2314, $p < 0.001$, suggesting that older participants may attain higher earnings, likely attributable to accumulated experience or seniority in income-generating positions.

Test of Hypothesis

H_0: "The N-power program exhibits no discernible impact on the monthly income of unemployed young individuals within the central senatorial district of Taraba State."

TABLE 2: Summary of the Probability Test

Variable	Parameter	P-value	Level of significance	Decision	Conclusion
N-power	β_1	0.000	0.05	Reject H_0	Significance

Source: Author's computation, 2023, Stata 11 version.

Table 2 delineates the statistical significance of the findings, as evidenced by a probability value that is less than 0.05, thereby substantiating the program's influence on the monthly income of unemployed youth in the designated study area.

Post-estimation Diagnostic

The subsequent post-estimation tests were performed in order to establish that the linear regression surveys conducted are devoid of errors and conform to the assumptions of linear regressions.

TABLE 3: Post-estimation Test result

Test	Estimation Result	Decision Rule
Heteroskedasticity Test		
- **Test Type**: Breusch-Pagan/Cook-Weisberg		
- **Chi² (1)**	8.84	
- **Prob > Chi²**	0.1829	**Accept**
Model Specification Error Test		
- **Test Type**: Ramsey RESET		
- **F (3, 663)**	4.45	
- **Prob > F**	0	**Reject**
Influence Measure Test		
- **Chi²**	111.39	
- **Degrees of Freedom (df)**	33	
- **P-value**	0	**Reject**
Multicollinearity Test		
- **VIF**	Mean VIF: 1.18	**No Multicollinearity**
AIC Model Fitness Estimation		
- **Observations**	673	
- **II (null)**	-980.813	
- **II (model)**	-891.026	
- **Degrees of Freedom (df)**	7	
- **AIC**	1796.052	**Accept AIC**
- **BIC**	1827.635	

Source: Authors Computation 2023, using Stata

Table 3 displays the results of the Breusch-Pagan test for heteroskedasticity. With a probability value exceeding the 0.05 significance threshold, we fail to reject the null hypothesis of constant variance, suggesting the absence of heteroskedasticity in the data. This implies that residuals likely exhibit constant variance across observations. Moreover, the findings from the Cameron & Trivedi's decomposition of IM test enhance the understanding of the relationship between the dependent and independent variables, with the influence

measure test statistic confirming statistical significance at a probability level below 0.05. Whereas, a multicollinearity test on the model yields a Mean Variance Inflation Factor (VIF) of 1.18, below the threshold of 5 (Gujarat, 2003), indicating no multicollinearity issue. A VIF below 10 is widely considered acceptable, while values under 2 suggest minimal collinearity, implying that the predictor variables are largely independent of one another. As a result, we reject the null hypothesis, indicating that individual observations significantly impact the estimated coefficients. The model's suitability for the study is further supported by a lower AIC value compared to the BIC value from the test statistics.

Estimation outcomes of the interaction model

TABLE 4: Estimation Result.

Dependent Variable Monthly y	Coefficient	Robust Std. Err.	t-stat	P > /t/	**(95% Conf. Interval)**	
Cons	1.2562	0.2019	6.22	0.000	0.8593	1.65301
Treatment	1.4907	0.1995	7.47	0.000	1.0987	1.8829
Savings	-0.0788	0.0498	-1.58	0.114	-0.1766	0.0191
Treatment*saving	0.0870	0.0569	1.53	0.127	-0.0248	0.1987
Edu. Qual	0.3239	0.0304	10.64	0.000	0.2641	0.3827
Hhsize	0.048.	0.0408	1.18	0.239	-0.0143	0.3612
Age	0.2256	0.0369	6.11	0.000	0.1532	0.3066
F (6, 666)	145.24					
Prob > F	0.000					
R- square	0.6849					
Root MSE	0.6797					

Source: Author's computation 2023. Stata 11 version. Note P < 0.05.**

Given the interaction model estimation result:
$Y=1.2562+1.4907$ (Treatment)-0.0788 (Savings)$+0.0870$ (Treatment×Savings)
Key findings

The primary effect of Treatment (1.4907): Signifies the fundamental disparity in monthly income for the treatment cohort in comparison to the control cohort when savings behavior is maintained at its reference level. Conversely, the primary effect of Savings (-0.0788): Denotes the alteration in income associated with a one-unit increment in savings behavior within the control cohort (when Treatment = 0). Furthermore, the Interaction effect (Treatment × Savings = 0.0870): Illustrates the variation in the association between savings behavior and income for the treatment cohort relative to the control cohort. Nonetheless, the p-value associated with the interaction term is 0.127 (indicating a lack of statistical significance), despite the 95% confidence interval for the interaction term being (-0.0248, 0.1987), which encompasses zero. Additionally, the control variables, such as educational attainment, reveal that an elevated level of education markedly enhances monthly income ($\beta = 0.3239$, $p < 0.01$). Similarly, age exerts a significant positive influence on income, whereas household size does not demonstrate significance.

DISCUSSION OF RESULTS

The intercept derived signifies a foundational income level that respondents attain, representing a minimum threshold of resources or opportunities at their disposal, independent of extraneous variables. This aligns with Sen's Capability Approach, which posits that well-being is influenced by the fundamental capabilities of individuals. The affirmative coefficient for the Treatment variable indicates that participants in the N-power program located in Taraba State experience an augmentation in their monthly income. These results indicate that participation in the N-Power program is a strong determinant of income improvement among youth. This is consistent with Sen's framework, which contends that developmental initiatives ought to bolster capabilities, such as income generation, through specific interventions like vocational training or financial assistance. A

multitude of studies, including those by (Donga & Jiddere, 2023; Yakubu et al., 2023), substantiate the proposition that such programs can markedly enhance the income of unemployed youth.

Conversely, the coefficient for Savings implies that the act of saving money is associated with elevated monthly income, thereby supporting the capability framework, as savings empower individuals to mitigate risks and invest towards economic autonomy. Individuals possessing savings are better equipped to weather financial adversities, thereby fostering stability and growth according to (Ng'ethe & Kabir, 2018), particularly within developing economies. The positive yet statistically insignificant effect of household size suggests that an increase in household members does not inherently translate to higher income, as this is contingent upon the capabilities of each household member. While larger households may distribute resources among members, they may concurrently restrict individual income potential if not all participants contribute economically, as noted by (Deaton & Paxson, 1997).

Furthermore, Education exerts a significant positive influence on monthly income, reinforcing the assertion that it enhances earning potential, as demonstrated in the works of (Glewwe, 2002; Krueger & Lindahl, 2001). Sen's approach regards education as a critical component for achieving valuable life functions, thereby fostering economic participation. Research indicates that additional years of education correspond to increased earnings (Sotiropoulos & Patrinos, 2018), particularly in developing contexts. The non-significant coefficient for Sex suggests that gender does not exert a substantial influence on monthly income, indicative of equitable access to opportunities within the sample, as corroborated by (Kabeer, 1999). Finally, Age demonstrates a positive correlation with income, suggesting that older individuals may possess a higher earning potential attributable to the accumulation of skills and experience (Heckman & Robb, 1985; Murphy & Welch, 1990). Sen's Capability Approach effectively elucidates the significance of resources and opportunities in amplifying individual capabilities and fostering economic empowerment.

To examine the research question regarding the variability of the marginal effect of the savings rate among participants and non-participants of the program, the coefficients concerning the marginal effects on monthly income linked to the N-Power youth empowerment initiative are scrutinized. The coefficient value of the treatment variable indicates that the treatment group possesses a baseline income advantage of approximately 1.49 units relative to the control group, while maintaining savings behavior constant. Conversely, the coefficient value pertaining to the savings variable reveals that in the control group, each additional unit of savings behavior correlates with an average decrease of 0.0788 units in income.

Furthermore, the interaction term indicates that for the treatment group, each additional unit of savings behavior results in an increase in income by an additional 0.0870 units when compared to the control group. This finding implies that the treatment program positively modifies the relationship between savings behavior and income. Nonetheless, the p-value for the interaction term is 0.127 (not statistically significant), and the 95% confidence interval for the interaction term spans (-0.0248, 0.1987), which encompasses zero. Although the results imply a potential positive interaction effect, the absence of statistical significance necessitates a cautious interpretation of these findings. Nevertheless, within the framework of program evaluation, the observed trend may still possess practical significance.

Additionally, when contextualizing the results through the lens of Sen's capability approach, the N-Power program enhances the capabilities of participants, facilitating their ability to more effectively convert savings behavior into income-generating opportunities in comparison to the control group. While the marginal effect in the treatment group is modest, it signifies progress in augmenting the economic agency and functioning of beneficiaries. Consequently, the marginal effect of savings on monthly income demonstrates variability contingent upon both group affiliations.

Therefore, employing a quasi-experimental methodology and survey-based linear regression, the research establishes a positive correlation between participation in the N-Power program and income, with savings serving to enhance this relationship. The study contributes to the discourse surrounding youth empowerment by providing empirical insights into the influences of income and savings patterns as a result of such initiatives, thereby underscoring the importance of financial management for achieving sustainable economic

empowerment.

CONCLUSION AND RECOMMENDATIONS

The N-Power initiative exerts a favourable influence on the income and savings of youth within the central senatorial zone of Taraba State, with savings serving a pivotal function in bolstering economic stability. Participants exhibit enhanced income levels and financial resilience, although the statistical significance of savings acting as a mediating variable is constrained. The results are consistent with Sen's Capability Approach, emphasizing the program's function in equipping youth with requisite skills and opportunities for economic empowerment. Conversely, non-participants display diminished financial autonomy, thereby highlighting the program's essential role in cultivating financial discipline and optimizing income.

To augment the program's effectiveness in promoting economic empowerment and alleviating poverty among rural youth in Taraba State and beyond, the following recommendations are proposed: Expand the initiative to encompass a greater number of rural youths from economically disadvantaged areas; Integrate financial management training to enhance participants' savings and resource allocation; Forge partnerships with banks and microfinance institutions to offer accessible savings and investment alternatives; Implement continuous evaluations to modify the program in response to the evolving needs of youth and to improve its efficacy.

Call for Further Investigation

Address the limitations inherent in the interaction model by executing longitudinal studies aimed at capturing significant interactions and validating the observed trends. Such endeavours will enrich the comprehension of the program's enduring impact on youth income and savings behaviours

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